5

10

15

20

## WHAT IS CLAIMED IS:

 A method for improving bile acid binding functionality of a food product or food product intermediate comprising short chain beta-glucan, comprising:

obtaining a short chain beta glucan from a grain;

providing a food product or food product intermediate;

adding to the food product or food product intermediate at least one modifying agent to provide a food product or food product intermediate with improved bile acid binding functionality; and

preparing the food product or food intermediate.

- 2. The method of claim 1 wherein the modifying agent is an enzyme.
- 3. The method of claim 2 wherein the enzyme is a  $1\rightarrow 4$  beta glucanase.
- The method of claim 3 wherein the 1→4 beta glucanase comprises laminex
  BG.
- 5. The method of claim 3 wherein the  $1\rightarrow4$   $\beta$ -glucanase comprises multifect B.
- 6. The method of claim 1, wherein the short chain beta glucan has a molecular weight which is less than about 5,000 Da.
- 7. The method of claim 6, wherein the short chain beta glucan has a molecular weight which is in the range of about 500-2500 Da.
  - 8. The method of claim 6, wherein the short chain beta glucan has a molecular weight which is in the range of about 900-1800 Da.

5

10

15

- 9. The method of claim 1, further comprising contacting the food product or food product intermediate with an additional modifying agent so as to provide modified short chain beta-glucan.
- 10. A food product or food product intermediate having improved bile acid binding capacity comprising;

a grain selected from the group consisting of oat, barley, wheat or corn; a modifying agent; and

a short chain or modified short chain beta glucan having an average molecular weight of less than 5,000 Da.

11. A cereal product with improved bile acid binding functionality, comprising; short chain beta glucan or modified short chain beta glucan; and wherein the short chain beta glucan or modified short chain beta glucan

resulted from in situ modification of native beta glucan in the cereal.

- 12. The cereal product of claim 11, wherein the short chain beta glucan is less than about 5,000 Da.
- 13. The cereal product of claim 11, wherein the short chain beta glucan is in the range of about 900-1800 Da.
  - 14. The cereal product of claim 11, wherein the *in situ* modification comprises enzymatic treatment.
- The cereal product of claim 11, wherein the enzymatic treatment comprises treatment with a 1→4 beta glucanase.
- 16. The cereal product as recited in claim 11 wherein the cereal product is selected from the group consisting of ready-to-eat cereals, cereal bars, cookies, granola bars, snack bars, chews, breads, ready to eat meals and muffins.

5

10

15

- 17. A food product or food intermediate as recited in claim 10, wherein the food product is selected from the group consisting of ready-to-eat cereals, cereal bars, cookies, granola bars, snack bars, chews, breads, ready to eat meals and muffins and dairy products.
- 18. A method for improving the bile acid binding functionality of a food product or food product intermediate having native beta glucan as a component, comprising:

contacting the food product or food intermediate with at least one  $1 \rightarrow 4$  beta glucanase; and

increasing the temperature of the food product or food intermediate to 110°C for at least about 45 minutes to provide the food product or food intermediate comprising short chain beta glucan or modified short chain beta glucan.

- 19. A method for improving bile acid binding functionality of a food product or food product intermediate as recited in claim 1, wherein the short chain beta glucan retains at least 10% of starch and protein associated with such grain.
- 20 A food product or food product intermediate as recited in claim 10, wherein the short chain beta glucan retains at least 10% of starch and protein associated with such grain.

19